

IN THE CLAIMS:

✓ 16
Please delete claims 1-~~15~~ without prejudice or disclaimer.

Please add new claims 16-36 as follows:

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2007-2008
~~17~~ --16. Monoclonal antibodies or their Fv, Fab, and F(ab')₂ fragments, which recognize an epitope of a bacterium of the species *T. equigenitalis*, and which do not exhibit a crossed reaction with an epitope or epitopes selected from the group consisting of epitopes of a bacterium of a different *Taylorella* species, and epitopes of a bacterium whose genus is different from *Taylorella*.

18 17. Monoclonal antibodies or their fragments, according to claim 16, which are capable of recognizing *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 150 kDa, 120 kDa, 52.7 kDa and 22 (LPS) kDa.

19 18. Monoclonal antibodies, which can be obtained from hybrids by a method comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice immunized by means of an inactivated strain of the species *T. equigenitalis* or extract(s) of such a strain,

cloning and selecting according to the capacity of their culture supernatant to recognize an epitope or epitopes of a bacterium of the species *T. equigenitalis*, and to not exhibit a crossed reaction with an epitope or epitopes selected from the group consisting of

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epitopes of a bacterium of a different *Taylorella* species or epitopes of a bacterium whose
genus is different from *Taylorella*,

recovering the required monoclonal antibodies, and
optionally purifying said monoclonal antibodies.

20 19. Immunogenic proteins, which are capable of interacting with monoclonal
antibodies or their fragments according to claim 16. ✓

21 20. Monoclonal anti-antibodies, and their Fv, Fab, and F(ab')₂ fragments, which
are capable of interacting with the monoclonal antibodies or their fragments according to
claim 16. ✓

22 21. A method of obtaining monoclonal antibodies according to claim 16, ✓
comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice
immunized by means of a strain of the species *T. equigenitalis* or extract(s) from such a
strain,

screening hybridomas whose culture supernatants exhibit a positive reaction
with a bacterium of the species *T. equigenitalis* or a fragment thereof,

selecting by cloning the hybridomas with respect to their reactivity, in
relation to *T. equigenitalis*,

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recovering the monoclonal antibodies, and
optionally purifying said monoclonal antibodies.

Q⁴ Cori^T 23 22. A method of obtaining monoclonal antibodies according to claim 20,
comprising:

fusing non-secreting murine myeloma cells with spleen cells from mice
immunized by means of monoclonal antibodies or their Fv, Fab, and F(ab')₂ fragments,
which recognize an epitope of a bacterium of the species *T. equigenitalis*, and which do not
exhibit a crossed reaction with an epitope or epitopes selected from the group consisting of
epitopes of a bacterium of a different *Taylorella* species, and epitopes of a bacterium whose
genus is different from *Taylorella*,

screening hybridomas whose culture supernatants exhibit a positive reaction
with one of the said monoclonal antibodies or their fragments,
selecting by cloning the hybridomas, and
recovering the required anti-antibodies.

24 23. Strains of hybridomas, which are capable of secreting the monoclonal
antibodies according to claim 16. ✓

25 24. Strains of hybridomas, which are capable of secreting the monoclonal
antibodies according to claim 20. ✓

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25. A method of identification of a bacterium of the species *T. equigenitalis* in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of at least one monoclonal antibody or fragment thereof according to claim 16, under conditions permitting a reaction of the antigen-antibody type, and

detecting any product formed in a reaction of the antigen-antibody type.

27 26. A method of identification of a bacterium of the species *T. equigenitalis* in a specimen or in a culture comprising:

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bringing the specimen or the culture to be analyzed which may contain *T. equigenitalis* into contact, under conditions permitting a reaction of the antigen-antibody type, with an effective quantity of a compound selected from the group consisting of an immunogenic protein and a monoclonal anti-antibody or Fv, Fab, and F(ab')₂ fragment thereof, wherein said protein and anti-antibody or fragment thereof are capable of interacting with monoclonal antibodies or their fragments according to claim 16, so as to detect the presence of antibodies directed against *T. equigenitalis*, and

detecting any product formed in a reaction of the antigen-antibody type.

28 27. Method of diagnosis of an infection by *T. equigenitalis* comprising:

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bringing one or more monoclonal antibodies according to claim 16 or their
fragments, into contact with a biological sample, and
detecting the reaction of the antigen-antibody type which is produced when
T. equigenitalis is present in the sample.

29 28. The method according to claim 25, further comprising blocking the non
antigen-antibody reactions.

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3⁰ 29. Kits for application of a method of identification of a bacterium of the
species *T. equigenitalis* in a specimen or in a culture, which include:
at least one compound selected from the group consisting of a monoclonal
antibody or fragment according to claim 16, an immunogenic protein and a monoclonal
anti-antibody or Fv, Fab, and F(ab')₂ fragment thereof, wherein said protein and anti-
antibody or fragment thereof are capable of interacting with said monoclonal antibody or
fragment thereof,

reagents, for carrying out the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody reactions, and
instructions for use.

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31 30. Pharmaceutical compositions comprising at one least one monoclonal antibody or fragment according to claim 16, in combination with a pharmaceutically inert vehicle.

32 31. Vaccinal compositions comprising at least one compound selected from the group consisting of an immunogenic protein and a monoclonal anti-antibody or Fv, Fab, and F(ab')₂ fragment thereof, wherein said protein and anti-antibody or fragment thereof are capable of interacting with monoclonal antibodies or their fragments according to claim 16, in combination with physiologically acceptable excipients, in a quantity sufficient for evoking an immune response.

33 32. Kits according to claim 29, wherein said reagent for carrying out the intended immunologic reaction is selected from the group consisting of markers and buffers.

34 33. Kits according to claim 29, wherein reagents for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.

35 34. The method according to claim 28, wherein the non antigen-antibody reaction is blocked by saturation of the specimen obtained by means of a serum from which anti-*T. equigenitalis* antibodies have been removed.